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09/334,208 06/15/99 DAVIS J DAVIS100

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QM02/0828

EXAMINER

SOLAK, T

ART UNIT	PAPER NUMBER
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3746

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DATE MAILED: 08/28/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/334,208

Applicant(s)
Davis

Examiner
Timothy P. Solak

Group Art Unit
3746



☒ Responsive to communication(s) filed on Jul 17, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-13 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-13 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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FINAL ACTION

Specification

1. The underlined reference numbers in the specification could lead to confusion and mistake during the issue and printing processes. Accordingly, the portion of the specification as identified below is required to be rewritten before passing the case to issue. See 37 CFR 1.125 and MPEP § 608.01(q). Pages 3-6 need to be replaced.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boone et al. (5,251,696), in view of Long, Jr. (4,450,943). Boone et al., teach a method of pumping an oil well, comprising the steps of: continuously running an engine, (column 5, line 55 to column 6, line 3), connecting the engine to a pump assembly 10 through a clutch 66 and determining a selected event to actuate the clutch (column 3, lines 34-44). Although, Boone et al. teach most of the limitations of the claim, they do not disclose a pneumatic clutch or a supply of gas. Long, Jr., teaches an air clutch 10 equipped with inflatable air bladders 64 for connecting hub 70 to clutch

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plate 106 in order to transmit rotary motion. Long, Jr. further teaches a method of supplying gas to inflate the bladders (column 2, lines 3-9) in order to engage the clutch. Long, Jr. teaches the air bladders advantageously increased the life of the clutch (column 1, lines 40-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the air clutch taught by Long, Jr., in the method disclosed by Boone et al., to have advantageously increased the life of the clutch.

4. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boone et al., in view of Long, Jr. (both previously mentioned), in further view of Turner et al. (3,247,798). Boone et al., teach most of the limitations of the claims, including a method for pumping an oil well depending on a selected event. Boone et al., however, do not teach the selected event to include a time interval or liquid level. Turner et al., disclosing a method of pumping an oil well, specifically teach a method to control the pumping cycle, based on periodic time intervals and the level within the well (column 6, line 19-23), in order to maintain an inflow of hydrocarbons from a producing formation (column 1, line 31). Turner et al., teach this method advantageously achieved maximum fluid production (column 6, lines 10-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the time/level method taught by Turner et al., in the method disclosed by Boone et al., to have advantageously achieved maximum fluid production.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boone et al., in view of Long, Jr. (both previously mentioned), in further view of Gallaway (3,075,467).

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Although, Long, Jr. and Boone et al. teach most of the limitations of the claim, including a method of pumping an oil well using a continuously running motor connected via a clutch equipped with pneumatically inflated bladders to a pumping assembly, they do not disclose using a supply of gas from the well to activate the clutch. Gallaway, disclosing a means of pumping liquids from a gas well, specifically teaches a method of using pressurized gas from the well to activate the pump (column 3, line 20). Gallaway, teaches this method was advantageously cost effective (column 1, line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method taught by Gallaway, in the method disclosed by Boone et al., to have advantageously lowered the cost incurred by the method.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boone et al., in view of Long, Jr. and Gallaway, in further view of Turner et al. (all previously mentioned).

Although, Boone, Long, Jr. and Gallaway, teach most of the limitations of the claim, including a method of pumping an oil well using a pneumatic clutch activated by a selected event, they do not disclose the event to include a time interval or a liquid level. Turner et al., disclosing a method of pumping an oil well, specifically teach a method to control the pumping cycle based on periodic time intervals and the level within the well (column 6, line 19-23). Turner et al., teach this method advantageously achieved maximum fluid production (column 6, lines 10-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made

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to have used the time/level method taught by Turner et al., in the method disclosed by Boone et al., to have advantageously achieved maximum fluid production.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boone et al., in view of Long, Jr. and Turner et al., in further view of Gallaway (all previously mentioned).

Although Boone et al., Long, Jr. and Turner et al., teach most of the limitations of the claim, including a method of pumping an oil well including: a continuously running motor connected to a pumping assembly via a clutch equipped with pneumatically inflated bladders, they do not disclose using a supply of gas from the well to activate the clutch. Gallaway, disclosing a means of pumping liquids from a gas well, specifically teaches a method of using pressurized gas from the well to activate the pump (column 3, line 20). Gallaway, teaches this method was advantageously cost effective (column 1, line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method taught by Gallaway, in the method disclosed by Boone et al., to have advantageously lowered the cost incurred by the method.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boone et al., in view of Long, Jr. (both previously mentioned), in further view of Kuehn, III et al. (4,392,782). Boone et al., teach most of the limitations of the claim, including a method of pumping an oil well by using a selected event to activate a pump in order to maintain an inflow of hydrocarbons from a producing formation while reducing the pump assembly's duty cycle (column 1, lines 34-50). Boone et al., however, do not disclose the selected event to be determined from directly

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monitoring the liquid level. Kuehn, III et al., disclosing a liquid level controller for oil wells, specifically teach a method consisting of: directly monitoring the liquid level inside a well (column 2, line 66) and actuating a pump to maintain the level between selected elevations (column 9, line 16). Kuehn, III et al., teach this method advantageously increased the efficiency and convenience of maintaining a liquid level in the well (column 9, line 16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method taught by Kuehn, III et al., in the method disclosed by Boone et al., to have advantageously increased the method's efficiency.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boone et al., in view of Long, Jr. and Kuehn, III et al., in further view of Gallaway (all previously mentioned). Boone et al. and Long, Jr. teach most of the limitations of the claim, including a method of pumping an oil well including: a continuously running motor connected to a pumping assembly via a clutch equipped with pneumatically inflated bladders. Boone et al. and Long, Jr., however, do not disclose using a supply of gas from the well. Gallaway, disclosing a means of pumping liquids from a gas well, specifically teaches a method of using pressurized gas from the well to activate the pump (column 3, line 20). Gallaway, teaches this method was advantageously cost effective (column 1, line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method taught by Gallaway, in the method disclosed by Boone et al., to have advantageously lowered the cost incurred by the method.

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10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boone et al., in view of Long, Jr. (both previously mentioned). Boone et al., teach a pumping assembly for maintaining hydrocarbon production from a well, comprising: an engine 30, a pump assembly 10, a clutch 66, and a control unit 44 for actuating the clutch enabling the engine to run continuously (column 5, line 55 to column 6, line 3). Although, Boone et al. teach most of the limitations of the claim, they do not disclose a pneumatic clutch. Long, Jr., teaches an air clutch 10, equipped with inflatable air bladders 64 connecting hub 70 to clutch plate 106 for transmitting rotary motion. Long, Jr. teaches the air bladders advantageously increased the life of the clutch (column 1, lines 40-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the air clutch taught by Long, Jr., in the pumping assembly disclosed by Boone et al., to have advantageously increased the life of the clutch.

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boone et al., in view of Long, Jr., in further view of Gallaway (all previously mentioned). Although, Boone et al. and Long, Jr., teach most of the limitations of the claim, including a control unit to activate a pneumatic clutch with air bladders, they do not disclose using gas from the well to fill the air bladders. Gallaway, disclosing a means of pumping liquids from a gas well, specifically teaches using pressurized gas from the well to activate the pump (column 3, line 20). Gallaway, teaches this method was advantageously cost effective (column 1, line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used gas

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from the well as taught by Gallaway, in the pumping assembly disclosed by Boone et al., to have advantageously lowered the cost of operation.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boone et al., in view of Long, Jr. and Gallaway (all previously mentioned), in further view of Dye (2,634,682). Although, Boone et al., teach the activation of the pumping cycle depended on a selected event, they do not disclose the use of a timer. Dye, disclosing an oil well pumping assembly, specifically teaches a control unit comprised of a timer 4 for activating the pumping cycle. Dye, teaches that the timer advantageously allowed unattended operation of the pump (column 1, lines 23-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the timer taught by Dye, in the pump assembly disclosed by Boone et al., to have advantageously allowed unattended operation of the pump.

13. Claim 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boone et al., in view of Long, Jr., in further view of Kuehn (all previously mentioned). Although, Boone et al. teach most of the limitations of the claims, including intermittent operation of a pump assembly dependent on well conditions, such as the well's liquid level, they do not disclose directly monitoring the liquid level. Kuehn, III et al., disclosing a liquid level controller for oil wells, specifically teach the use of thermistors 68 and 70 to monitor the level of liquid inside the well (column 2, line 66). Kuehn III, et al., further teach, the liquid level controller 10 receives signals from the sensors 68 and 70 and cycles the pump on and off to maintain the level below a maximum height. Kuehn, III et al., teach the thermistors advantageously increased the efficiency

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and convenience of maintaining a liquid level (column 9, line 16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the thermistors taught by Kuehn, III et al., in the pump assembly disclosed by Boone et al., to have advantageously increased the units efficiency.

Response to Arguments

14. The claim rejections based on USC 112 first paragraph, claims 1-13, are withdrawn in view of Mr. Dunns' declaration.

15. Applicant's arguments received 7/17/2000 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 1, 2, 5 and 9 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Gallaway teaches, one of the advantages of using pressurized gas from the well, to evacuate the said well, was reduction in operational costs (column 1, lines 24-35). It

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would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied the pressurized gas supply taught by Gallaway, to the pumping assembly disclosed by the combination of prior art, to have advantageously reduce the operational costs of the pumping assembly. Therefore, the argument is not persuasive, and the rejection is proper.

In response to applicant's argument that Kuehn, III et al. teach only on/off operation of the pump, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

◆ Latsko (4,958,713) teaches a clutch with an air bladder.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy P. Solak whose telephone number is (703) 308-6197. The examiner can normally be reached on Monday through Thursday from 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe, can be reached on (703) 308-0102. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3588.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.



TPS

August 17, 2000



Timothy S. Thorpe
Supervisory Patent Examiner
Group 3700